REMARKS

I. INTRODUCTION

In response to the Office Action dated May 12, 2003, the claims have not been amended. Claims 1-18 remain in the application. Entry of these amendments, and re-consideration of the application is requested.

II. PRIOR ART REJECTIONS

In paragraph (4) of the final Office Action, claims 1-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Edwards et al., U.S. Patent No. 6,459,442 B1 (Edwards) in view of Screen Dumps of Microsoft Windows 4.0 (MS WIN).

Applicants respectfully traverse these rejections.

Specifically, independent claims 1, 7, and 13 were rejected as follows:

> As per claim 1, Edwards teaches a computer-implemented method for selecting objects comprising:
>
> displaying a two-dimensional viewport of one or more existing objects maintained within a three-dimensional space represented in a computer-implemented graphics system (fig. 29; col. 12, lines 42-44);
>
> obtaining a selection request from a user using a cursor selection device while locating the cursor in the two-dimensional viewport (col. 12; lines 44-46; *the graphics system keeps track of where the cursor is so that users may manipulate objects*);
>
> examining the existing objects to obtain one or more relationships between the existing objects (col. 12, lines 37-40);
>
> creating one or more virtual objects based on the relationships (col. 14, lines 40-43);
>
> creating a selection set comprised of at least one of the existing objects and at least one of the virtual objects based on the relationships (fig. 17; *selection set comprising of existing object 426d, existing object 426e and virtual object 1702*);
>
> determining if the selection request is for an object in the selection set, and if the selection request is for an object in the selection set, selecting all of the objects in the selection set (fig. 17; *'ab' is grouped to become one entity –user clicks on 'a' and 'ab' is selected, user clicks on 'b' and 'ab' is selected*). Edwards does not specifically disclose the method of selecting objects that are not specifically stroked based on th relationship. MS Win teaches a method of selecting objects that are not specifically stroked based on a relationship (figs. 3-7; *objects 300 and 400 are grouped to become one entity – after mouse clicking on 300(x) and pressing ctrl+clicking on 400(y), user clicks on x and xy is selected, user clicks on y and xy is selected; when users right click on either x or y then select the command "Open" from the Pop-up menu, the "Open" command will be carried out for both x as shown in fig. 7 and y as shown in fig. 6*). Therefore, it would have been obvious to an artisan at the time of the invention to include MS Win's teaching of a method of selecting objects that are not specifically stroked based on a relationship wherein related objects are grouped using non-stroked means to Edward's method of selecting objects based on the relationship in order to provide users with an alternative method in selecting.
>
> Claims 7 and 13 are similar in scope to claim 1 and are therefore rejected under similar rational.

Applicants traverse the above rejections for one or more of the following reasons:

(1) Neither Edward nor MS Win teach, disclose, or suggest examining existing objects to obtain a relationship between such existing objects;

(2) Neither Edward nor MS Win teach, disclose, or suggest a virtual object;

(3) Neither Edward nor MS Win teach, disclose, or suggest a virtual object that is not specifically stroked;

(4) Neither Edward nor MS Win teach, disclose, or suggest creating a virtual object based on a relationship between two existing objects;

(5) Neither Edward nor MS Win teach, disclose, or suggest creating a selection set comprising existing objects AND a virtual object; and

(6) Neither Edward nor MS Win teach, disclose, or suggest selecting all objects in a set (including a virtual object and existing objects) when any object in the set is selected.

Independent claims 1, 7, and 13 are generally directed to selecting objects. Specifically, existing objects (that are displayed in a viewport) are examined to determine and obtain a relationship between them. Based on the relationship, a virtual object (that is not specifically stroked) is created. In other words, an object, that is virtual, is created and is not displayed. A selection set is then created that contains the virtual object and one or more of the existing objects. A selection request from a user is examined to determine if an object (i.e., either a virtual object or existing object) in the selection set is being selected. If an object in the set has been selected, all of the objects (including the virtual object and the existing objects) in the set are also selected.

The cited references do not teach nor suggest these various elements of Applicants' independent claims.

Edwards merely describes a freeform display editing system that groups freeform strokes into one or more segments on a display. Each segment in the system defines a region of the display that includes a collection of strokes. Multiple behaviors can be dynamically attached or removed from any given segment, even after a segment has been created and filled with strokes. Each behavior provides a task-specific application to the segment to which it is attached. Segments de-couple interpretations of input data from behaviors to provide temporal multiplexing of task-specific applications. Advantageously, data associated with a segment can be composed at the same time by different behaviors. (See Edwards' Abstract)

Thus, as illustrated throughout Edward's specification and figures, Edwards provides a general system for applying application behaviors to freeform data. In this regard, when a user is writing in freeform, Edwards provides the capability to join the new freeform data with already existing freeform data. However, as described above, Edwards completely fails to even remotely describe using such freeform data to create a virtual object that is added to the set containing the freeform data. In this regard, Edwards use of boundaries around freeform data does not teach a virtual object or the creation of a virtual object. Instead, there is merely a boundary around the freeform data.

The Office Action relies on col. 12, lines 37-40 to teach the claimed element of "examining the existing objects to obtain one or more relationships between the existing objects." Col. 12, lines 37-40 provides:

> ...In addition, this behavior will predict a subsequent drawing based upon the spatial relationship among an input stroke and existing painted strokes in a segment (see for example candidates 2802 and 2804 FIG. 28).

Edwards' input stroke is a freeform stroke input by a user using an input (e.g., cursor) device (see col. 2, lines 35-38 for example). Therefore, the relied upon lines of text illustrate that the spatial relationship exists between a stroke input from a user and existing painted strokes. Such a relationship is clearly different and distinguishable from the claimed relationship that is based on existing objects (and not newly created input from a user stroke). In this regard, Edward's relationship between a new user stroke and an existing painted stroke does not teach, disclose, or suggest a relationship between two existing objects as claimed.

The Office Action relies on col. 14, lines 40-43 to teach creating one or more virtual objects based on relationships between existing objects. Col. 14, lines 40-43 provide:

> It will be appreciated by those skilled in the art that the shape defining the bounded region of a segment need not be rectangular as illustrated in the Figures. Instead, the bounded region of a segment may for example have an oval or circular shape.

However, such language does not describe the creation of a virtual object whatsoever. As amended, a virtual object is an object that is not specifically stroked. In other words, it is an area that is not displayed on the screen. For example, a virtual object may comprise the empty space between strokes in a dashed line. Stating that a bounded region can be a variety of shapes has no impact whatsoever and does not even remotely allude to such a virtual object. Further, the virtual object is

based on the relationship between the two existing objects. The above citation to Edward does not even remotely describe such a reliance on a relationship between two existing objects.

Applicants assume that the Examiner is intending to equate Edward's bounded region to the claimed virtual object. However, the bounded region is merely a region or visual density surrounding a segment that is specifically stroked (see col. 6, lines 59-62). Edwards describes the ability to join two segments into a single bounded region (see col. 10, lines 19-23). However, the creation of a combined segment that merely consists of two stroked segments is not even remotely similar to a virtual object that is not specifically stroked. In this regard, a single bounded region that contains two stroked segments teaches away from a virtual object that is not stroked. Edwards' single bounded region is not the same, nor does it suggest the virtual object. Instead, if anything, the bounded region could potentially suggest the claimed selection set. However, nothing in Edwards describes the bounded region containing a virtual object that was not specifically stroked (as in the claims). Accordingly, the bounded region cannot possibly teach or suggest the selection set or the virtual object as claimed.

The Office Action continues and provides that item 1702 of fig. 17 is a virtual object. Fig. 17 follows:

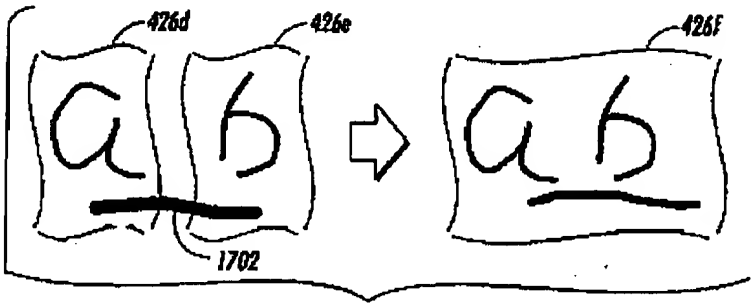

FIG. 17

As illustrated in Fig. 17, item 1702 is displayed and is a stroke. Accordingly, contrary to the present claims, item 1702 is specifically stroked. Further, col. 10, lines 36-53 describe Fig. 17 and 18. Based on the description, item 1702 is a joining stroke specifically drawn by the user that comprises a horizontal line that extends from one segment to the other. Thus, item 1702 is clearly not a virtual object as claimed. Instead, item 1702 is a stroke that is drawn by a user and displayed on a screen.

Additionally, stroke 1702 is not created based on the relationship between objects 426d and 426e. Instead, stroke 1702 is created based on the stroke of a user. Accordingly, the creation of stroke 1702 is not the creation of a virtual object based on a relationship between two existing objects.

Further, since stroke 1702 is not a virtual object, item 426f cannot be a set comprised of an existing object and a virtual object. In this regard, as displayed, item 426f includes stroke 1702 that is specifically stroked (and therefore not a virtual object). Further, Edwards teaches away from adding a virtual object to the set. For example, referring to input strokes (strokes from a user) and associating the input stroke with segments at col. 6, lines 65-68, Edwards provides: "In either case, the input stroke is not added to the selected segment's associated set of painted strokes 420 (i.e., output strokes)." Accordingly, Edwards specifically provides that the stroke is not added to the set of existing objects. Thus, even if Edward's input stroke is considered a "virtual object" as claimed, it is not added to the set. In this regard, Edwards teaches away from the invention as claimed.

The Office Action continues and states that in fig. 17, if the user clicks on 'a', 'ab' is selected and if the user clicks on 'b', 'ab' is selected. Fig. 17 merely shows two text objects 426d and 426e being joined using a join stroke 1702. There is no indication, explicit or implicit that indicates that if the user clicks on either 'a' or 'b' that the entire segment will be selected. Further, the claims provide for the selection of any object in the set resulting in the selection of all of the objects. In other words, if the letter 426d, letter 426e, and stroke 1702 were all part of the set, the claims provide that if line 1702 is selected, object 426a and 426e would also be selected.

In addition to selecting 'ab' if 'a' or 'b' is selected, the claims specifically provide for the selection of the virtual object as well (such a selection is provided in the claims by the selection of all of the objects in the selection set wherein the selection set specifically comprises an existing object AND a virtual object). Thus, if Edwards met the claim limitations, the selection of 'a' or 'b' would result in the selection of 'ab' AND line 1702 (and not just the selection of 'ab'). Edwards and the Office Action fail to describe such a selection whatsoever. Further, as described above, the input stroke (i.e., line 1702) is clearly excluded from the selected set (see col. 6, lines 65-68).

In response to the above, the final Office Action provides:

> Edwards teaches how users' create one or more objects based on relationships by bounding a region to let the system know users' intent to create objects wherein the objects may be 3D virtual objects (col. 14, lines 40-43; col 12, lines 42-44). Furthermore, Edwards teaches how to create a virtual object based on a relationship between two existing objects, as evident in fig. 17 wherein users

> may not select 'a' without 'b' also being selected and vice versa after the relationship has been established.

Applicants respectfully disagree with the above assertions in the final Office Action. In this regard, col. 14, lines 40-43 and col. 12, lines 42-44 are relied upon to suggest that objects may be 3D virtual objects. Col. 12, lines 42-44 describes a 3D model based on a 2D freeform input stroke. Such a freeform input stroke is clearly not a virtual object since it is an actual stroke, unlike the claimed virtual object that is not specifically stroked. Further, col. 14, lines 40-43 merely describes that a bounded region may be various shapes. Such a disclosure completely fails to describe a virtual object whatsoever. In addition, neither of these cited sections refer to 3D virtual objects or an intent to create such 3D virtual objects (as asserted in the final Office Action).

The above final Office Action assertions also allege that fig. 17 of Edwards provides that 'a' may not be selected without 'b' also being selected and vice versa after the relationship has been established. Firstly, there is no depiction (in Edwards) of such a dependent-based selection in Fig. 17 itself. In addition, nowhere in Edwards is there any description of such a dependency based selection and/or the lack of ability to select one without the other. Such an assertion clearly improperly construes and adds language to Edwards specification.

In addition to the above, even if the user may not select 'a' without 'b' (which applicant traverses), the selection of multiple objects (i.e., 'a' and 'b') is not equivalent to the creation of a virtual object that is also selected when another object in a set (that contains the virtual object) is selected. Such a creation and selection is not present anywhere in Edwards.

In view of the lack of Edward's capability to teach selecting objects as claimed, the final Office Action relies on printouts from Microsoft Windows. In this regard, the final Office Action asserts that various icons may be selected while holding down a <CTRL> key. In this regard, the Office Action asserts that after clicking on one icon, the user may hold down the <CTRL> key and select another icon and thereby combining/grouping the two icons together. Thereafter, the Office Action asserts that the user can either click on the first icon or second icon and both icons are selected. In addition, the final Office Action asserts that when the user right clicks while the cursor is over either icon, a menu command is displayed allowing the user to execute the "open" command which is executed for both icons.

Applicants disagree with the above assertions. Firstly, Applicants respectfully request a textual description that explains how such selections are occurring in MS Win. Based on

experimenting with a computer executing Windows 2000, the assertions in the Office Action were not true. Applicants agree that by holding down the <CTRL> key, two icons may be selected. However, after both icons are selected, you cannot click on one and select both. Instead, clicking on one (while the <CTRL> key is not selected) merely reselects the icon that is clicked on (thereby deselecting the other icon). If the <CTRL> key is held down, the icon that is clicked is merely deselected. Accordingly, both icons are not selected. In addition, the fact still remains that a virtual object, in addition to the icons, is not selected as part of a selected set. In this regard, no virtual object is selected as claimed.

Further, the Office Action asserts that by right clicking, the user may execute the "open" command against both icons. Applicants agree that both applications represented by both icons may be opened in this manner. However, such execution and opening of represented applications does not open a virtual object (nor does it open an application represented by a virtual icon). Merely opening applications represented by both icons does not read on the claims whatsoever and is irrelevant with respect to the claims. Such actions merely indicate that the specifically selected and stroked icons (i.e., both x and y had to be specifically stroked and selected to make the group) may be opened using a single command. Once again, nowhere is there any indication or use of a virtual object or a selection of a virtual object.

In addition to the above, Applicants note that the claims provide that the objects are maintained in a 3D space represented in a computer-implemented graphics system. The MS Win icons are not maintained in 3D space. Instead, MS Win's icons are merely icons displayed on a screen in an operating system. The use and comparison of icons displayed on a screen within an operating system is not even remotely similar to a graphics system and a 3D space within such a system. In this regard, MS Win is non-analogous art to Edwards and the present invention. The MPEP §706.02(j) provides that "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." There is no such suggestion or motivation in either MS Win or Edwards. Further, there is no such motivation or suggestion in the knowledge generally available to one of ordinary skill in the art. Accordingly, it is improper to combine the references as done in the Office Action.

In addition to the above, it is clear that Edwards merely relates to the use of strokes by a user and the recognition and association of such strokes with a segment. Edwards does not address selecting objects using virtual objects created by a system for areas that are not specifically stroked. Further, MS Win fails to select a virtual object as claimed and is in a completely different technological field that that of the present invention. Accordingly, both Edwards and MS Win relate to and address a completely different problem and solution from that of the present invention. In this regard, Applicants' invention solves problems not recognized by either Edwards or MS Win. Moreover, the various elements of Applicants' claimed invention together provide operational advantages over Edwards and MS Win.

Thus, Applicants submit that independent claims 1, 7, and 13 are allowable over Edwards and MS Win. Further, dependent claims 2-6, 8-12, and 14-18 are submitted to be allowable over Edwards and MS Win in the same manner, because they are dependent on independent claims 1, 7, and 13, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-6, 8-12, and 14-18 recite additional novel elements not shown by Edwards and MS Win.

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III. CONCLUSION

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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